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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,586	12/22/2003	Hsu-Hsiang Tseng	LUCP0006USA	1585
27765 7590 02/02/2007 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER VLAHOS, SOPHIA	
			ART UNIT	PAPER NUMBER
			2611	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/02/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/707,586

Applicant(s)

TSENG, HSU-HSIANG

Examiner

SOPHIA VLAHOS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/22/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/22/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority (TAIWAN 092132552 filing data 11/20/2003) under 35 U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

With respect to claim 1, step (f) mentions a "...into I signal..." this clearly should be "...into a second I signal..." (similarly to the mentioned second Q signal). More important step (g) recites: "... (the second I signal)*(a first bit sign a first threshold value)..." this equation (?) with the "*" (indicating multiplication or a product) should be replaced by the equivalent description of the "... (the second I signal)*(a **first bit sign a first threshold value**)..." and the emphasized part should be clarified because it is incomprehensible. In step (h), it is understood that a following (next or subsequent) I weighting is the product of a bit sign **corresponding to an I weighting value**

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preceding the following I weighting value and a difference between the preceding (previous) I weighting value and a threshold value **corresponding to the preceding I weighting value according to a sign of the preceding I weighting value...**(emphasis added), the emphasized parts are should be clarified because they are currently incomprehensible.

Steps (i) and (j) relating to Q weighting values are also indefinite for the same reasons as steps (g) and (h) (relating to I weighting values).

Claim 3 mentions: "wherein the de-mapping device in step (h) determines signs of **all I weighting values preceding the following I weighting value** and sets the following I weighting value thereafter." (emphasis added), here it is understood that the de-mapping device determines signs for all the weighting values that precede the next weighting value and then set the next weighting value (what does this mean?).

Claim 5, contains a limitation similar to the one of claim 3 (but relating to the Q weighting) and should also be clarified.

Dependent claims 2 and 4 are also rejected as being indefinite since they contain the limitations of claim 1.

The claims are so incomprehensible as to preclude a reasonable search of the prior art by the examiner.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, step (h) of claim 1 must be shown or the feature(s) canceled from the claim(s). Step (h) reads: "setting a following I weighting value to be a product of a bit sign corresponding to an I weighting value preceding the following I weighting value and a difference between the preceding I weighting value and a threshold value corresponding to the preceding I weighting value according to a sign of the preceding I weighting value with the de-mapping device"

Fig. 4 (the top part dealing with the I weighting) shows: box 2 for example $sb1 = s1 \times (I - th1)$ where sb1 is the following I weighting (and sb0 is the initial I weighting), therefore step (h) "setting a following I weighting value (sb1 for example) to be a product of a bit sign (S1 is the bit sign corresponding to threshold T1 that has value th1) **corresponding to an I weighting value preceding the following I weighting value** (the emphasized part is not shown S1 – and how does it correspond to an I weighting value preceding the following I weighting value – if S1 is associated with the threshold th1 (T1)?) and a difference between the preceding I weighting value and a threshold value corresponding to the preceding I weighting value according to a sign of the preceding I weighting value with the de-mapping device (the "I-th1" part of box 2, however, I is not the "preceding I weighting value" it is the I signal and all boxes use I in the difference computation)

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jeong (U.S. 6,907,084)

Kandala et. al. (U.S. 6,977,972)

Wilhelmsson et. al., (U.S. 2005/0201484)

Chiu et. al., (U.S. 2005/0047524)

Ramesh (U.S. 6,078,626)

Agami et. al. (U.S. 6,834,088)

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SOPHIA VLAHOS whose telephone number is 571 272 5507. The examiner can normally be reached on MTWRF 8:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SV
1/31/2007


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER